

Title (en)
RF FRONT END MODULE AND NEAR FIELD COMMUNICATION DEVICE

Title (de)
FRONTEND-MODUL UND NAHFELDKOMMUNIKATIONSVORRICHTUNG

Title (fr)
MODULE FRONTAL RF ET DISPOSITIF DE COMMUNICATION EN CHAMP PROCHE

Publication
EP 3416298 A1 20181219 (EN)

Application
EP 18175217 A 20180530

Priority
US 201715621286 A 20170613

Abstract (en)
A device for inductively coupled communications includes an NFC module for generating an electromagnetic carrier signal and modulating the carrier signal according to data to be transmitted, and an antenna circuit coupled to and driven by said NFC module with the modulated carrier signal. The device includes an RF front end coupled between said NFC module and said antenna circuit. The RF front end includes a balanced to unbalanced (Balun) transformer and a tuning capacitor. The Balun transformer has a first winding coupled to said NFC module via differential transmitter terminals of said NFC module and a second winding coupled to said tuning capacitor. A first terminal of said tuning capacitor is coupled to a receiving terminal of said NFC module. The Balun transformer and tuning capacitor provide a function of an electromagnetic compatibility (EMC) filter.

IPC 8 full level
H04B 5/48 (2024.01)

CPC (source: CN EP US)
H04B 5/22 (2024.01 - CN); **H04B 5/24** (2024.01 - CN EP US); **H04B 5/48** (2024.01 - CN); **H04B 5/72** (2024.01 - EP US);
H04W 88/06 (2013.01 - US)

Citation (search report)

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- [Y] US 2015249485 A1 20150903 - OUYANG YUEHUI [US], et al
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EP3772185A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3416298 A1 20181219; **EP 3416298 B1 20200923**; CN 109088657 A 20181225; CN 109088657 B 20220422; US 10200091 B2 20190205;
US 2018359005 A1 20181213

DOCDB simple family (application)
EP 18175217 A 20180530; CN 201810610617 A 20180613; US 201715621286 A 20170613